

REMARKS

The present Response is intended to be fully responsive to all points of objections and/or rejections raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application are respectfully requested.

Applicant asserts that the present invention is new, non-obvious and useful. Prompt reconsideration and allowance of the claims are respectfully requested.

Status of the Claims

Claims 8 and 10-12 are pending in the application.

Remarks to Claim RejectionsClaim Rejections - 35 USC §103

In the Office Action, the Examiner rejected claims 8 and 10-12 under 35 U.S.C. §103(a), as being unpatentable over Lee (US 6,228,763B1) in view of Pang (US 6,177,329B1) and Kim et al. (US 2002/0106891A1).

Applicants respectfully disagree with the Examiner's rejections.

With regard to claim 8, the Examiner has not properly established a *prima facie* obviousness against the claim according to MPEP 2143. "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations".

It is respectfully submitted that Lee in view of Pang and Kim et al. does not teach or suggest all the limitations of claim 8. For example, claim 8 recites specifically that "said first dielectric layer and said third dielectric layer each have a dielectric constant less than that of the second dielectric layer". This distinctive element is not taught, suggested, or even implied by prior art reference Lee, Pang, or Kim et al., alone or in

combination. In the Office Action, the Examiner acknowledges that the combined teachings of Lee and Pang fail to teach the above claim limitation. Applicants respectfully submit that Kim et al. also fail to teach a first and a third dielectric layer that has a dielectric constant less than that of a second dielectric layer.

Based on the Examiner, combination of Lee and Pang teaches a third dielectric layer made of silicon oxide, which the Examiner alleges may be replaced by a silicon oxycarbide layer. The Examiner seems to imply that since Kim et al. describe a silicon oxycarbide that has a smaller dielectric constant than silicon oxide, elements of claim 8 of present invention become obvious over Lee in view of Pang and Kim et al. With regard to the Examiner's above argument, Applicants would like to point out that:

Firstly there are no teachings or suggestions by Lee, Pang, or Kim et al. alone or in combination about the dielectric constant of the first dielectric layer, and in particular the relationship among dielectric constants of the first, second, and third dielectric layers as particularly recited by claim 8 of present invention. Such teachings or suggestions are specifically required by MPEP 2143, as quoted above, in order to properly establish a *prima facie* obviousness rejection.

In fact, as acknowledged by the Examiner in the Office Action, Pang teaches a first (110) and a second (112) dielectric layers that are made of the same material such as parylene, HSQ, and fluorinated silicate glass (FSG). Thus, the first and second dielectric layers may actually have the same dielectric constant, as opposed to the requirement of claim 8 that the first dielectric layer has a dielectric constant less than that of the second dielectric layer. In addition, even the second dielectric layer and a third dielectric layer (134) may be the same material of silicon oxide and therefore the same dielectric constant as opposed to the required dielectric constant relationship recited by claim 8. Clearly, Lee and Pang teaches away from the limitations of claim 8 of the present invention that the first and third dielectric layers have a dielectric constant less than that of the second dielectric layer.

Secondly, neither Lee nor Pang offers any suggestions or motivations to replace the alleged third dielectric layer of silicon oxide with the silicon oxycarbide taught by Kim et al. Even though, Kim et al. describe using silicon oxycarbide instead of silicon

oxide to reduce parasitic capacitance, parasitic capacitance has never been described by either Lee or Pang as an issue or problem that need to be addressed or solved, and so there is never such a desire or motivation to do so by Lee and Pang. According to MPEP 2143, "the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure", in order to make a *prima facie* obviousness rejection.

Furthermore, Lee, Pang or Kim et al. never teaches how to combine the prior art references. In fact, since the second dielectric layer of Lee and Pang may also be made of silicon oxide, replacing the silicon oxide with silicon oxycarbide in the second dielectric layer may actually create a structure with the dielectric constant of the second dielectric layer being less than that of the third dielectric layer, which is exactly opposite to what is required by claim 8 of the present invention.

In view of the above, Applicants respectfully submit that claim 8 includes distinctive elements that are not taught, suggested, or implied by prior art references of record, in particular by Lee, Pang, or Kim et al. alone or in combination, and therefore is patentable.

Claims 10-12 depend directly from claim 8, and thus include all the distinctive elements of claim 8 in addition to other distinguishing features. Therefore, claims 10-12 are patentable at least for the reasons as described above with regard to claim 8.

In view of above, Applicants respectfully request that rejections of claims 8 and 10-12 under 35 U.S.C. §103(a) be withdrawn.

### Conclusion

In view of the preceding remarks, Applicants respectfully submit that all pending claims are now in condition for allowance. Favorable reconsideration and allowance of the claims are respectfully requested.

No fees are believed to be due in connection with this paper. However, if there is any such fee due, please charge any such fee to the deposit account No. 09-0458.

Respectfully submitted,



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Dated: April 4, 2006

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